

REMARKS

The following remarks are intended to be fully responsive to the Office Action mailed June 29, 2005. If any aspect of this response is deemed deficient, the Examiner is invited to contact the Applicant's representative.

WITHDRAWN CLAIMS:

If the Examiner allows the pending claims, the Applicant respectfully requests that withdrawn claims 10-13 and 16-17 be reinstated because they are believed to be generic to claim 1. A notice to that effect is respectfully requested.

102 REJECTIONS

As a preliminary matter, Applicant notes that claim 21 is cited as rejected in the "Office Action Summary", but the "Detailed Action" does not state specifically why this claim is rejected. Applicant respectfully requests that notice be given as to why this claim is rejected.

Claims 1, 2, 5-9, 14-15, 18-19 and 21 are rejected under 35 U.S.C. 102, as being anticipated by Wakabayashi et al. (USP 5316640, herein "the '640 patent"). The Applicant respectfully traverses.

The present invention is related to, but not limited to, MEMS-type devices. As described in the background section of the present invention, prior devices have had issues of chipping or breaking, which the present invention seeks to cure. This problem is cured by the process in Claim 1, which recites, among other limitations, etching a pattern into a surface of the device to form "at least three sidewalls and a rounded edge between the surface of the device and all of the at least three sidewalls in the feature."

The Office Action alleges that the '640 patent discloses this limitation in Column 4, lines 42-45 and in figure 1(e). Column 4, lines 42-45 states: "The GaAs surface comes to be exposed at the portion the silicon dioxide film is removed and, in turn, the GaAs substrate is gradually etched by being directly irradiated by the chlorine beam." This passage of the '640 patent simply discloses that a surface is being etch. This passage does not disclose forming "at least three sidewalls and a rounded edge between the surface of the device and all of the at least three sidewalls in the feature" as recited in claim 1.

Acknowledging that neither figure 1 nor Column 4 disclose all the limitations in claim 1, the Office Action states that "the top view of fig.1(e) would have shown the feature includes at least three sidewalls and a round edge between the surface of the device and all of the sidewalls in the pattern." The micro lens 16 formed from the GaAs substrate 11 is very different from the claimed invention because the micro lens 16 does not have rounded sidewalls, let alone any sidewalls as recited in claim 1. Figure 11 of the present invention is a good example of an "island" formed from a substrate that has rounded sidewalls. It is very clear that the '640 patent does not disclose, teach or suggest the invention of claim 1. Because the '640 patent does not discloses each and every limitation of claim 1, there can be no anticipation. A notice to that effect is respectfully requested.

The Office Action further states that claims 1-3 are rejected as being anticipated by Koumura et al (USP 5456798; herein "the '798 patent"). Similar to the arguments above, the '798 patent does not disclose rounded sidewalls. Again, the Office Action relies on what "the top view of fig. 5(c) would have shown" (emphasis added), yet there is no evidence that a top view would have shown at least three rounded sidewalls. Because the '798 patent does not disclose each and every limitation of claim 1, there can be no anticipation. A notice to that effect is respectfully requested.

Further, the Office Action states that claim 3 is rejected under 35 USC 103(a) as being unpatentable over Wakabayashi et al. in view of Koumura et al, and claim 19 is rejected under 35 USC 103(a) as being unpatentable over Wakabayashi et al. in view of Brand et al (US 5853959).

Claims 2-3, 5, 14-15, and 18-19 depend from independent claim 1 and, as described above, define further features and structure of the device. Accordingly, these claims are patentable for the reasons noted above with respect to claim 1 as well for the additional features recited therein. Therefore, notice to the effect that dependent claims 2-3, 5, 14-15, and 18-19 are in a condition for allowance is respectfully requested.

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CERTIFICATION UNDER 37 C.F.R. 1.8

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I hereby certify that this Response and the documents referred to as attached therein are being transmitted via facsimile to facsimile number 571-273-8300 at the United States Patent and Trademark Office Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown above.

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